

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

SENTIUS INTERNATIONAL, LLC,

Plaintiff,

v.

BLACKBERRY LIMITED and
BLACKBERRY CORPORATION,

Defendants.

CASE NO. 2:16-CV-773-JRG-RSP

JURY TRIAL DEMANDED

PLAINTIFF'S OPENING CLAIM CONSTRUCTION BRIEF

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1	Asserted Patents and Claims
2	U.S. Patent Reissued RE40,731E dated June 9, 2009
3	U.S. Patent Reissued RE43,633E dated September 4, 2012
4	<p><i>Sentius Corporation v. Flyswat, Inc.</i> (NDCA Case No. C00-02233 SBA) Order Re: Construction of Claim 8 of U.S. Patent No. 5,822,720 (Dkt. 52-7; filed 3.29.02)</p>
5	<p><i>Sentius International, LLC v. Microsoft Corporation</i> (NDCA Case No. 5:13-cv-00825-PSG) Claim Construction Order (Dkt. 66; filed 1.9.14).</p>
6	Declaration of Dr. Vijay K. Madisetti dated April 20, 2017.
7	Curriculum Vitae of Dr. Vijay K. Madisetti, ECE.
8	<p><i>Sentius International LLC v. Microsoft Corporation</i> (NDCA Case No. 5:13-cv-00825-PSG, Motion for Summary Judgment of No Infringement (Direct, Indirect, or Willful); pp. 3-4 (Dkt. 129; filed 12.2.14).</p>
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11	IEEE Standard Dictionary of Electrical and Electronics Terms (1996) (defining “link” as “a pointer.”).
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14	“Document Image Understanding: Geometric and Logical Layout”, pps. 386, 387, 389, Robert M. Haralick, Electrical Engineering FT-10 University of Washington, Seattle, WA 98115 - 1994 IEEE.

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19	“TreadMill Ink – Enabling Continuous Pen Input on Small Devices”, Giovanni Seni, Motorola Human Interface Labs, 805 E. Middlefield Road, Mountain View, CA 94043, Proceedings of the Eighth International Workshop on Frontiers in Handwriting Recognition, 2002 IEEE.
20	“The Text Editor sam”, pps. 6-8, 12, 14, 18, Rob Pike - rob@plan9.bell-labs.com.
21	U.S. Patent No. 5,436,637 - issued July 25, 1995 entitled “Graphical User Interface System and Methods for Improved User Feedback”. Inventors: Charles E. Gayraud; Perry A. Gee.
22	U.S. Patent No. 5,581,670 - issued December 3, 1996 entitled “User Interface Having Movable Sheet with Click-Through Tools”. Inventors: Eric A. Bier; William A. S. Buxton.
23	European Patent Publication No. 0266001A2, “A Parser for Natural Language Text”. Applicant: International Business Machines Corporation. Inventors: Antonio Zamora; Michael D. Gunther; Elena M. Zamora.
24	Emacs - Version 18.59 (ftp://ftp.gnu.org/old-gnu/emacs/) and VI (VIM) Version 3.0 (ftp://ftp.vim.org/pub/vim/unix).
25	<u>Array. (n.d.) Christensson, P. (2007, October 17). Array Definition. Retrieved 2017, May 24, from https://techterms.com/definition/array.</u>

I. INTRODUCTION

Plaintiff Sentius International, LLC (“Sentius”) proposes constructions that are consistent with the plain language of the claims and are supported by the specification.

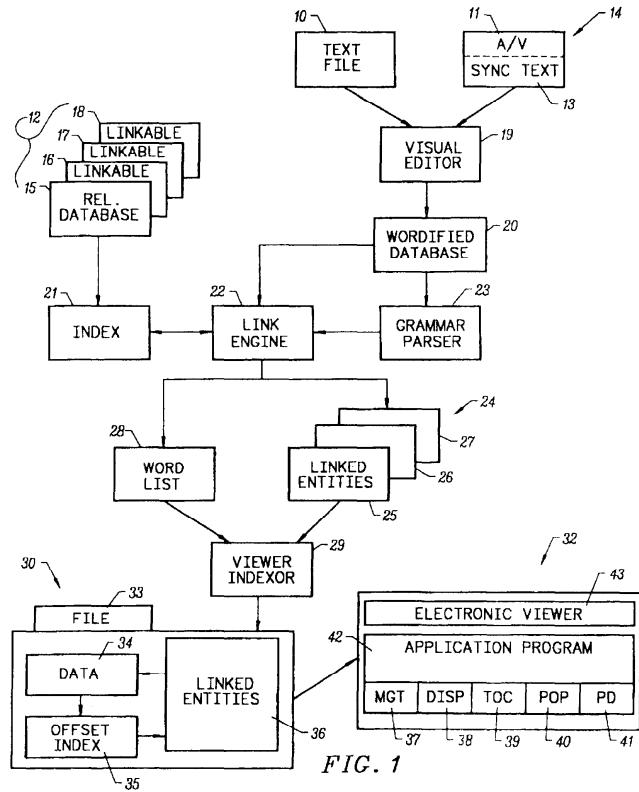
II. OVERVIEW OF THE PATENTED TECHNOLOGY

The present invention dates back to 1994 and is directed to a software improvement to text editors of the day, referred to in the specification and known by those of ordinary skill in the art as visual editors. The invention builds on known techniques providing the conventional functionality of then existing visual editors to improve their efficiency and productivity by adopting a new scheme in which words in a text document are linked to reference materials. For example, selecting, cutting, determining beginning and ending addresses, calculating offsets, recording, selecting, converting, retrieving, and displaying are routine operations supported by standard operating systems, editors/viewers, and composition tools since the 1980s. (*See* Declaration of Dr. Vijay Madisetti in Support of Plaintiff Sentius International LLC’s Claim Construction (“Madisetti Decl.”) (Ex. 6), ¶¶ 41-50.)¹

Instead of conventionally using unwieldy linking information, such as hyperlink data, within the text stream of a document, the present invention stores the relative starting and ending character positions of words in the document in a look-up table outside of the text stream. For each entry in the table spanning a given starting and ending character position range, the invention also stores linking information that points the system to corresponding external reference materials (located outside of the document) to be retrieved and displayed to a user for the particular word located at that character position range in response to a user input indicating a

¹ (*See* “Ten Years of Windows Systems – A Retrospective View” (Ex. 17); “Document Formatting Systems: Survey, Concept, and Issues” (Ex. 18); Emacs – Version 18.59 (Ex. 24))

desire to see the external reference material for that word. By storing this specific information in a data structure located outside of the text stream, the invention makes the document smaller and easier to work with, and facilitates the processing of the document by the visual editor. (Madisetti Decl. (Ex. 6), ¶¶ 26-30.)



AMENDED

As shown in Fig. 1 (all cites herein are to the '731 patent), the invention utilizes a visual editor 19, grammar parser 23, link engine 22 and an indexor 29 to process an open text file to create the data structure 202/35 which includes entries for the character position ranges of each linked word along with the linking information that points the system to the corresponding external materials to be retrieved and displayed for that word. ('731 patent (Ex. 2), 5:5-28, 6:46-65, 7:1-39; Madisetti Decl. (Ex. 6), ¶¶ 27-29, 51-83.)

As further shown in Fig. 1, a user interface 32 includes an application program 42 and an electronic viewer module 43 that receives a user indication, such as a right click on a particular displayed word, converts the click location on the display to a character position in the document, and accesses the data structure to look-up the linking information for the word at that character position to retrieve and display the corresponding external content for that word. ('731 patent (Ex. 2), 5:29-33, 6:46-65, 7:40-49, Madisetti Decl. ¶¶ 30, 84-133.)

III. RELEVANT PRINCIPLES OF CLAIM CONSTRUCTION

Claim construction is a matter of law. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 387 (1996). The ordinary and customary meaning of a claim term is “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (*en banc*). Proper claim construction examines “the claim language, the written description, and, if relevant, the prosecution history . . . [t]he appropriate starting point, however, is always with the language of the asserted claim itself.” *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186 (Fed. Cir. 1998). Not only do “the claims themselves provide substantial guidance as to the meaning of particular claim terms,” *Phillips*, 415 F.3d at 1314, but also “the context of the surrounding words of the claim” must be considered to determine “the ordinary and customary meaning of those terms.” *Id.*

Extrinsic evidence may not be used to contradict or change the meaning of claims “in derogation of the ‘indisputable public records consisting of the claims, the specification and the prosecution history,’ thereby undermining the public notice function of patents.” *Phillips*. at 1319 (quoting *Southwall techs., Inc. v. Cardinal IG Co.* 54 F.3d 1570, 1578 (Fed. Cir. 1995)). While the court may consider such evidence “if the court deems it helpful in determining ‘the true meaning of languages used in the patent claims,’” the extrinsic evidence “is unlikely to

result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence.” *Id.* at 1318-19. At times, a district court may need to resolve subsidiary factual disputes in the course of construing a patent claim, such as finding that a “certain term of art had a particular meaning to a person of ordinary skill in the art at the time of the invention.” *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 837-38, 841-42 (2015).

A. 35 U.S.C. § 112 ¶ 6

The essential inquiry for determining if a claim term is subject to § 112 ¶ 6 is whether “the words of the claim are understood by persons of ordinary skill in the art to have sufficiently definite meaning as the name for structure.” *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348 (Fed. Cir. 2015). A claim limitation is presumed to invoke § 112 ¶ 6 when it explicitly uses the term “means” with functional language. *TriMed v. Stryker Corp.*, 514 F.3d 1256, 1259 (Fed. Cir. 2008). The presumption is overcome when the limitation further includes the structure necessary to perform the recited function. *Id.* at 1259-60. Furthermore, the claim language is read in light of the specification when determining if the claim language recites sufficiently definite structure to avoid § 112 ¶ 6. *Robert Bosch, LLC v. Snap-On Inc.*, 769 F.3d 1094, 1099 (Fed. Cir. 2014).

Construing a means-plus-function claim term under 35 U.S.C. § 112 ¶ 6 is a two-step process. *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1311 (Fed. Cir. 2012). First, the court must determine the claimed function; then, the court must identify the corresponding structure in the specification that performs the function. *Id.* Structure disclosed in the specification qualifies as “corresponding structure” if the specification or prosecution history clearly associate the structure to the claimed function. *Id.*

The specification may disclose the structure of a § 112 ¶ 6 claim limitation as an algorithm in any understandable terms, including as a mathematical formula, in a flow chart, in

prose, or “in any other manner that provides sufficient structure.” *Finisar Corp. v. DIRECTV Group, Inc.*, 523 F.3d 1323, 1340-41 (Fed. Cir. 2008); *See also Typhoon Touch Techs., Inc. v. Dell, Inc.*, 659 F.3d 1376, 1384 (Fed. Cir. 2011) (holding a generic description of structure is sufficient; the “specific algorithm” need not be disclosed explicitly). For example, “core logic” modified to perform a particular program was held to be adequate corresponding structure for a claimed function although the specification did not disclose internal circuitry of the core logic to show exactly how it was modified. *Intel Corp. v VIA Technologies, Inc.*, 319 F.3d 1357, 1366 (Fed. Cir. 2003) (“how to modify the core logic to perform Fast Write . . . may also be properly left to the knowledge of those skilled in the art, and need not be specified in the patent”).

The sufficiency of a disclosed algorithm is interpreted in light of the understanding of one skilled in the art. *AllVoice Computing PLC v. Nuance Commc’ns, Inc.*, 504 F.3d 1236, 1245 (Fed. Cir. 2007) (“algorithms in the specification need only disclose adequate defining structure to render the bounds of the claims understandable to one of ordinary skill in the art”). For example, a “selector” was adequately disclosed as corresponding structure for the “means . . . for selectively receiving.” *S3, Inc. v nVIDIA Corp.*, 259 F. 3d 1364, 1370-71 (Fed. Cir. 2001). In *S3*, testimony was introduced that the selector was a standard component well known in the art and that standard components were usually represented in the same way that were in the patent in suit. *Id.* There was also testimony that one skilled in the art would “recognize that the selector as shown in the specification [was] an electronic device such as a simple multiplexer, whose structure [was] well known.” *Id.* In contrast, a box in a figure (not even a block diagram) labeled “Image Format Conversion” did not refer to a type of structure nor did it serve to link software to the function of a “means for converting.” *Medical Instrumentation and Diagnostics v Elekta*, 344 F. 3d 1205, 1211-14 (Fed. Cir. 2003). The Court noted that if the box had been labeled “Image Conversion Software,” or if the box at least appeared in a figure illustrating the

components of the apparatus, corresponding structure may have been present. *Id.* at 1214 (“there would be no need for a disclosure of the specific program code if software were linked to the converting function and one skilled in the art would know the kind of program to use”).

Furthermore, in a case involving the function “status sensing means,” the Federal Circuit found sufficient corresponding structure where the specification explained that “vacuum sensors are commercially available units which produce analog signals for the control unit.” *Budde v Harley-Davidson, Inc.*, 250 F. 3d 1369, 1381 (Fed. Cir. 2001). The Court further looked to the inclusion of a box labeled “vacuum sensor” in a block diagram and testimony that the “commercially available unit” would have been understood by a person having ordinary skill in the art to disclose structure capable of performing the recited function.” *Id.* at 1381-82.

B. Indefiniteness

The party alleging that a claim is invalid as indefinite must make that showing by clear and convincing evidence. *See Strikeforce Techs., Inc. v. Phonefactor, Inc.*, Civil Action No. 13-490-RGA-MPT, 2015 U.S. Dist. LEXIS 1027 at *11-12 (D. Del. Jan. 29, 2015) (citing *TecSec, Inc. v. Int'l Bus. Machs. Corp.*, 731 F.3d 1336, 1349 (Fed. Cir. 2013)). “A patent is invalid for indefiniteness if its claims, read in light of the patent’s specification and prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014); *See also Cox Communications v. Sprint Communication Co. LP*, 838 F.3d 1224, 1232-33 (Fed. Cir. 2016) (reversing a finding of indefiniteness based on the term “processing system” where the specification “provides certain algorithmic details, including that ‘selections are made through table look-ups and SCP queries’ . . . and provides detail about how these queries are constructed”); *TecSec, Inc.*, 731 F.3d at 1349 (overturning a finding of indefiniteness where the specification discloses more than a mere “black box” and “provide[s] detailed prose that shows

how the specific software products operate to implement the claimed functions”). Moreover, the mere reference to the title of an article in an IEEE Journal of Solid State Circuits was held to indicate to OSITA the precise structure of a high voltage generating means claims element. *Atmel Corp. v. Information Storage Devices, Inc.*, 198 F.3d 1374, 1382 (Fed. Cir. 1999).

Here, Defendants cannot prove by clear and convincing evidence that any limitations of the Joint Claim Construction Statement (D.I. 51 in 15-cv-262) are indefinite.

IV. ANALYSIS

A. look-up table²

Claim Phrase	Sentius' Proposed Construction	BlackBerry's Proposed Construction
look-up table	a data structure that contains values for searching	an array or matrix of data that contains values for searching

A “look-up table” is “a data structure that contains values for searching.” (Madisetti Decl., ¶ 40.) There is no dispute whether “look-up table” contains values for searching. However, Defendants ask the Court to construe “look-up table” as limiting the data structure to “an array or matrix of data.” Defendants’ proposed construction unnecessarily limits the term to an “array” or “matrix of data,” which are never used in the claims or specification to describe a “look-up table.” (See *Phillips*, 415 F.3d at 1321.) The term has no such limited meaning in the context of the claims or specification. The word “array” itself is defined as “a data structure that contains a group of elements,” wherein “[t]ypically these elements are all of the same data type, such as an integer or string.” (Christensson, P. (2007, October 17). Array Definition. (Ex. 25)). See also, definitions of “lookup” in the Microsoft Press Computer Dictionary (Ex. 9) and the Computer Glossary by Alan Freedman (Ex. 10). In contrast, the look-up table in the

² The term “look-up table” appears in asserted claim 95 of the ’731 patent, and in asserted claim 17 of the ’633 patent. See Joint Claim Construction and Prehearing Statement (D.I. 46 in 16-cv-773) at p. 3.

specification comprises elements of different data types, namely starting and ending positions and linking information. ('731 patent, Fig. 2 at 202, 6:55-65.) Because the definition of "array" includes "data structure," Defendants' proposed construction convolutes the meaning of "look-up table" by introducing further uncertainty as to the meaning of "array or matrix," when the root term "data structure" is unambiguous. In the asserted claims, "look-up table" only refers to "recording" in a look-up table or comparing values with data "recorded" in the look-up table. ('731 patent, Claim 95; '633 patent, Claim 17 (Ex. 3); *See* Madisetti Decl., ¶¶ 27, 29, 68-78, 82.) Thus, according to the plain meaning of the claims, a "look-up table" only requires a data structure for recording values for searching.

"A data structure that contains values for searching" is supported by the specification. For example, the specification describes that "[t]he offset value is compared to the start and end position indices stored in a look-up table (201, 202) . . . an offset of 25 is located at the look-up table location having a start point 20 and an end point of 27 and is linked to text located at position 200." ('731 patent, 6:55-62.) Furthermore, "[a]s can be seen from the look-up table (202), the link may be to text, sound, pictures, and video." (*Id.*, 6:62-64.) While Fig. 2 illustrates an exemplary embodiment of a "look-up table" 201/202, the specification generally describes that "start and end points of the cut text are recording in a look-up table along with the links to external references." (*Id.*, 7:34-35; *See* Madisetti Decl., ¶¶ 54, 113.) The specification teaches that "[t]he number and type of links for any component is dynamic" – "[t]his means that a single entry could have several different references attached to it, each containing different forms of data." ('731 patent, 7:35-39.) Thus, the construction of "look-up table" should encompass any data structure that would allow for recording start and end position addresses, and associated links as described in the specification.

B. link³

Claim Phrase	Sentius' Proposed Construction	BlackBerry's Proposed Construction
link	a pointer to data or information or the location of data or information	a pointer to data or information, or a pointer to the location of data or information

A “link” is “a pointer to data or information or the location of data or information.” This is precisely how the term was construed by Judge Grewal in *Sentius Int'l v. Microsoft Corp.*, 5:13-cv-00825-PSG (N.D.CA) (Dkt. 66) (Ex. 5 at p. 2). This definition is also consistent with that found in technical dictionaries (High Tech Dictionary (Ex. 12) and IEEE Standard Dictionary of Electrical and Electronics Terms (Ex. 11)). Defendants’ construction is unduly narrow as it improperly limits the term to only a “pointer” to the location of data or information. The claim language merely refers to “a link to the at least one of the plurality of external reference materials,” and does not require pointers. (’731 patent, Claim 95; ’633 patent, Claim 17.) The specification discloses an embodiment that includes “a link engine 22 that builds an index 21,” and that the “index provides a location for each reference in a database 12 that includes a relational database engine 15, and linkable entities.” (*Id.*, 5:14-19.) Thus, the link may include a location of data or information, as well as a pointer. (See Madisetti Decl., ¶¶ 29, 40, 76-83.) Defendants’ proposed construction is incorrect at least because it excludes such disclosed embodiments. (See *Oatey Co. v. IPS Corp.*, 514 F.3d 1271, 1276 (Fed. Cir. 2008).)

The specification also teaches that the “linking process takes the text after the word cut process and links it to an external reference,” and further teaches that “a link engine 22” builds “an index 21 which, in turn, locates each textual and audio/video reference in the source material.” (’731 patent, 7:12-16.) If a “link” is deemed only a “pointer,” the claim term “link”

³ The term “link” appears in asserted claim 95 of the ’731 patent, and in asserted claim 17 of the ’633 patent. See Joint Claim Construction and Prehearing Statement (D.I. 46 in 16-cv-773) at p. 3.

would be limited only to a single embodiment in violation of standard claim construction principles. (*See Phillips*, 415 F.3d at 1323; *Oatey Co.*, 514 F.3d at 1276.) Neither the claims nor the specification require that the link be constructed only as a pointer.

C. offset value⁴

Claim Phrase	Sentius' Proposed Construction	BlackBerry's Proposed Construction
offset value	a position relative to a starting point	the distance from a starting point, either the start of a file or the start of a memory location

An “offset value” is “a position relative to a starting point.” Defendants’ proposed construction improperly limits the “starting point” to “either the start of a file or the start of a memory location.” The term “offset value” has no limited meaning in the context of the claims or specification. The asserted claims recite “an offset value from the beginning position address.” (’731 patent, Claim 95; ’633 patent, Claim 17.) The asserted claims further disclose “comparing the offset value with the starting and ending point addresses recorded in the look-up table to identify one of the plurality of discrete pieces.” (*Id.*) To identify the discrete piece, each of the offset value and the starting and ending point addresses must be relative to the same beginning position address. (’731 patent, 7:29-49.) While “beginning position address” is addressed below, the claims do not explicitly or implicitly limit the beginning position address to the start of a file or memory location. (*See* Madisetti Decl., ¶ 40.)

Furthermore, the specification does not limit the “starting point” to the start of a file or memory location. The specification describes that, after a user clicks within a text image, “the location of the pointer is determined” and is “converted into a position offset from the beginning of the text.” (’731 patent, 7:41-43.) For example, “the click position is determined and used to

⁴ The term “offset value” appears in asserted claim 95 of the ’731 patent, and in asserted claim 17 and 22 of the ’633 patent. *See* Joint Claim Construction and Prehearing Statement (D.I. 46 in 16-cv-773) at p. 4.

calculate an offset value within the text (200).” (*Id.*, 6:51-57.) Thus, the specification does not limit the “offset value” to a distance from a start of a file or memory location, but rather generally to a starting point of the text. (*See* Madisetti Decl., ¶¶ 40, 103-108.)

In addition, the word “distance” in Defendants’ proposed construction is not found in the claims or specification, and unnecessarily adds uncertainty to the construction of “offset value.” (*See Phillips*, 415 F.3d at 1321.) The specification consistently refers to “offset value” in terms of a relative position to the beginning of the text, not as a distance. (*See* ’731 patent, 7:20-49.) This is a critical distinction that Defendants’ proposed construction overlooks.

Although the construction of “offset value” is clear from the claim language and the specification, Defendants improperly rely on the prosecution history of U.S. Patent No. 5,822,720 for their proposed construction. The portions of the prosecution history cited to by Defendants do not unequivocally invoke any disavowal of claim scope. For example, the prosecution history recites that “Cassorla is limited to a specific text format. In contrast, the claimed invention operates upon pure byte offsets that are unrelated to the data type, location, and format.” (U.S. Patent No. 5,822,720 Prosecution History, Response to Office Action, pp. 10-11 (Jan. 25, 1996); *See Id.*, Response to Office Action, p. 7 (May 28, 1996); Response to Office Action, pp.6-7 (July 8, 1996).) These portions of the prosecution history, however, do not mention the start of a file or a memory location. Instead, the prosecution history refers to the claimed offsets being “pure byte offsets,” which are unrelated to a start of a file or a memory location but instead refer to a relative position from a starting point, such as a beginning point address. (*See Id.*, p. 11.)

D. beginning position address⁵

Claim Phrase	Sentius' Proposed Construction	BlackBerry's Proposed Construction
beginning position address	beginning point location	beginning memory location

The term “beginning position address” means “beginning point location.” This construction is consistent with the plain meaning of the claim language, specification, and prosecution history. As the specification describes, the starting and ending point addresses, and the offset value, are determined based upon the beginning position address. (*Id.*; *See* '731 patent, 7:1-49; Madisetti Decl., ¶¶ 27, 51-57.) The specification generally discloses that “[a] text file 10 and/or multimedia source 14, consisting of an audio/video filter 11 and synchronized text 13, which may include sound, images, and/or video is edited during construction of a linked text database by a visual editor 19 . . .” ('731 patent, 5:8-12.) The beginning position address is also discussed during the compilation of an image of the text: “When the image is created, the cuts are indexed based upon the position offset from the beginning of the text.” (*See Id.*, 7:1-49.) (emphasis added.) Thus, nothing in the specification limits the beginning point address to a memory location. Instead, the beginning point address refers to a point location indicative of the beginning of the textual source material, which is used as a reference point for the starting and end point addresses and offset value. (*See Id.*, 6:48-62.)

Defendants’ alternative proposal unduly limits “beginning position address” to only a “beginning memory location,” which is far narrower than the inventor’s intended scope of the claim element. For example, the asserted claims merely recite “determining a beginning position address of textual source material stored in an electronic database.” ('731 patent, Claim 95; *See* '633 patent, Claim 17.) Defendants improperly rely upon the prosecution history of U.S. Patent

⁵ The term “beginning position address” appears in asserted claim 95 of the '731 patent, and in asserted claim 17 of the '633 patent. *See* Joint Claim Construction and Prehearing Statement (D.I. 46 in 16-cv-773) at p. 4.

No. 5,822,720 for their proposed construction. The portions of the prosecution history cited to by Defendants do not unequivocally invoke any disavowal of claim scope of the term “beginning position address.” While the prosecution history makes reference to a “pure byte offset,” nowhere is “beginning position address” limited to a memory location. (U.S. Patent No. 5,822,720 Prosecution History, Response to Office Action, pp. 10-11 (Jan. 25, 1996).) For example, the relative difference between two point locations may be a pure byte offset, regardless of whether the point locations are locations in memory or otherwise. Without a clear, unequivocal disavowal of claim scope (as required by cases such as *Pacing Technologies, LLC v. Garmin Int'l, Inc.*, 778 F.3d 1021, 1024 (Fed. Cir. 2015) and *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)), the prosecution history cannot unduly limit the construction of “beginning position address.”

E. starting point address and ending point address⁶

Claim Phrase	Sentius’ Proposed Construction	BlackBerry’s Proposed Construction
starting point address	starting point location	an offset value from the beginning position address to the starting point
ending point address	ending point location	an offset value from the beginning position address to the ending point

The term “starting point address” should be construed as “starting point location;” and the term “ending point address” should be construed as “ending point location.” Defendants’ proposed constructions unduly limit “starting point address” and “ending point address” to an offset value, while the plain meaning of the claim term and the specification do not require such narrow constructions. The asserted claims recite a “means for determining a starting point

⁶ The terms “starting point address” and “ending point address” appears in asserted claim 95 of the ’731 patent, and in asserted claim 17 and 22 of the ’633 patent. *See* Joint Claim Construction and Prehearing Statement (D.I. 46 in 16-cv-773) at p. 5.

address and an ending point address of at least one of the plurality of discrete pieces based upon the beginning position address” and a “means for comparing the offset value with the starting and ending point addresses recorded in the look-up table to identify one of the plurality of discrete pieces.” (’731 patent, Claim 95; ’633 patent, Claims 17, 22.) While the claims recite comparing an offset value with the starting and ending point address, the plain meaning of the claim language does not limit the starting and ending point addresses to anything other than a location relative to the beginning position address. (See Madisetti Decl., ¶¶ 29, 40, 65-67.)

The specification supports the constructions of “starting point location” and “ending point location.” The specification teaches that the “start and end position indices” are “stored in a look-up table (201, 202).” (’731 patent, Fig. 1-2, 6:56-57.) Moreover, table 202 of Fig. 2 shows the exemplary embodiment records character position offsets relative to the beginning of the text such as character position range 10-15 in the first entry and character position range 20-27 in the third entry. In general, the specification describes that “[a] text file 10 and/or multimedia source 14 . . . is edited during construction of a linked text database by a visual editor 19 that is used to build a wordified database 20,” the wordified database 20 sourcing “a grammar parser 23 and a link engine 22.” (*Id.*, Fig. 1, 5:8-19.) While certain embodiments describe that “the cuts are indexed based upon the position offset from the beginning of the text,” (*Id.*, 7:32-33) the specification clearly encompasses embodiments in which the wordified database 20 is generated by the visual editor 19 from sources other than only text (e.g. “multimedia source 14, consisting of an audio/video filter 11 and synchronized text 13, which may include sound images, and/or video”). (*Id.*, 5:9-11.) Construing “starting point address” as “starting point location” and “ending point address” as “ending point location” incorporates these disclosed embodiments. Furthermore, Defendants’ citations to the prosecution history do not refer to the starting and ending point address as offset values. In addition, Defendants’ proposed

constructions unnecessarily convolute the constructions of “starting / ending point address” and “offset value.”

F. display address⁷

Claim Phrase	Sentius’ Proposed Construction	BlackBerry’s Proposed Construction
display address	display location	a pixel location or screen coordinates on a display

The term “display address” should be construed as “display location.” Defendants’ proposed construction attempts to limit the “display address” to a “pixel location or screen coordinates on a display,” although this term has no limited meaning in the context of the claims or specification. The asserted claims include a “means for determining a display address of the selected discrete portion” and a “means for converting the display address of the selected discrete portion to an offset value from the beginning position address.” (’731 patent, Claim 95; ’633 patent, Claim 17.) The plain meaning of the claims does not require knowing a particular pixel location or screen coordinates, only a display location of the selected discrete portion so as to convert the location into an offset value. (’731 patent, 6:48-59, 7:40-49.)

The specification does not support Defendants’ unduly narrow proposed construction. The specification discloses that “[w]hen the user ‘clicks’ within the text image, the location of the pointer is determined.” (*Id.*, 7:41-42.) One of ordinary skill in the art would understand that the “location” corresponds to the claimed “display address.” (See *Id.*, Figs. 1-2, 6:48-65, 7:40-55; Madisetti Decl., ¶¶ 97-102.) While horizontal and vertical coordinates are described, screen coordinates are given as an example (“e.g.”) of one type of user input location. (’731 patent, 5:53-55.) The specification further describes various displays which may be used and

⁷ The term “display address” appears in asserted claim 95 of the ’731 patent, and in asserted claim 17 of the ’633 patent. See Joint Claim Construction and Prehearing Statement (D.I. 46 in 16-cv-773) at p. 5.

capabilities of each, none of which comprise addresses limited to pixel locations or screen coordinates. (See *Id.*, Figs. 3-5, 4:38-49, 5:24-44, 5:51-61, 8:14-19, 8:28-9:64.)

G. means for determining a beginning position address of textual source material stored in an electronic database⁸

Claim Phrase	Sentius' Proposed Construction	BlackBerry's Proposed Construction
means for determining a beginning position address of textual source material stored in an electronic database	<u>Function</u> : determining a beginning position address of textual source material stored in an electronic database <u>Structure</u> : a processor programmed to perform the step of assigning a character position for the first character of a given set of text within an open text file, and equivalents thereof.	<u>Function</u> : Agreed <u>Structure</u> : This claim is indefinite under 35 U.S.C. § 112 ¶ 2 and ¶ 6 because the specification does not sufficiently disclose an algorithm to perform the function associated with this limitation.

Since the specification clearly articulates the structure, “a processor programmed to perform the step of assigning a character position for the first character of a given set of text within an open text file, and equivalents thereof,” linked to the claimed function, the term “means for determining a beginning position address of textual source material stored in an electronic database” is not indefinite.

The specification recites steps of determining the beginning position address of textual source material stored in an electronic database. The specification discloses, “An electronic book and/or a multi-media source material is provided as a teaching resource. A text file 10 and/or a multimedia source 14 . . . is edited during construction of a linked text database by a visual editor 19 that used to build a wordified database 20.” (’731 patent, 5:7-13.) The text file 10 being input to the visual editor 19 is exemplified in Fig. 1. (*Id.*, Fig. 1.) The method by which the system processes the text file is further described by the specification:

⁸ This claim term appears in asserted claim 95 of the ’731 patent, and in asserted claim 17 of the ’633 patent. See Joint Claim Construction and Prehearing Statement (D.I. 46 in 16-cv-773) at p. 6.

“The word cutting process is accomplished using a simple visual editor, for example a point and click system using a pointing device, such as a mouse. The process divides the text into the individual components of text that are linked with the additional reference material. The original text is provided by a publisher in electronic form in a raw binary text format (e.g. an ASCII text file or other word processor file). This text is then divided up into the component word or phrases in preparation for the next step.” (*Id.*, 7:6-10.)

Thus the specification shows a first step of determining a beginning position address of textual source material stored in an electronic database is opening an electronic text file into memory (e.g. with a visual editor). Furthermore, the specification teaches that “[a] key feature of the system format is the method by which the original book text is indexed and linked with the external references. During the compile process an image of the text is created. When the image is created, the cuts are indexed based upon the position offset from the beginning of the text.” (*Id.*, 7:29-33.) (emphasis added.) The system thus recognizes the first position of the text in the text file with the visual editor, and bases the other position addresses relative to the first position. (*See also* Madisetti Decl., ¶¶ 51-57.)

One of ordinary skill in the art would understand the bounds of the claimed function based on the specification’s recited structure with reasonable certainty. (Madisetti Decl., ¶¶ 52-53; *See AllVoice Computing PLC*, 504 F.3d at 1245.) The specification makes clear that the algorithm includes opening an electronic text file into memory with a visual editor, and identifying the first position of the text in the text file with the visual editor. (*Id.*) One skilled in the art would know that in order to input the text file into a visual editor, the system would open the file and identify the starting location of the text file in the electronic database. (Madisetti Decl., ¶ 42,-43 and 54; *See also* *Id.*, ¶ 42-43; “Document Image Understanding: Geometric and Logical Layout,” Ex. 14; “A Structure Editor for Abstract Document Objects,” Ex. 15.) No further processing beyond merely identifying where the text starts in the electronic database is necessary for determining the beginning position address of the textual source. (*Id.*)

H. means for cutting the textual source material into a plurality of discrete pieces⁹

Claim Phrase	Sentius' Proposed Construction	BlackBerry's Proposed Construction
means for cutting the textual source material into a plurality of discrete pieces	<u>Function</u> : cutting the textual source material into a plurality of discrete pieces <u>Structure</u> : a processor programmed to perform the step of parsing the given set of text into individual words, and equivalents thereof.	<u>Function</u> : Agreed <u>Structure</u> : This claim is indefinite under 35 U.S.C. § 112 ¶ 2 and ¶ 6 because the specification does not sufficiently disclose an algorithm to perform the function associated with this limitation.

The specification explicitly discloses that “[t]he word cutting process is accomplished using a simple visual editor, for example a point and click system using a pointing device, such as a mouse. The process divides the text into individual components of text that are linked with the additional reference material.” (’731 patent, 7:2-6; *See* Fig. 1 at 10, 19, Fig. 2 at 202.) In particular, the specification teaches that “[t]he original text is provided by a publisher in electronic form in a raw binary text format (e.g. an ASCII text file or other word processor file). This text is then divided up into the component words or phrases in preparation for the next step.” (’731 patent, 7:6-10; *See* Madisetti Decl., ¶¶ 58-59.)

Thus, the specification discloses a method for cutting the textual source material into a plurality of discrete pieces, namely dividing the original text into component words or phrases. While the use of a “visual editor” is given as an example for performing the process of dividing the text into individual words, it is certainly not necessary to execute the algorithm described in the specification. (’731 patent, 5:8-13, 7:2-10; *See also* Fig. 1 (“grammar parser 23”)). Nevertheless, one skilled in the art would understand that the specification describes a visual editor and includes programming (such as grammar parser 23) used to parse a given set of text

⁹ This claim term appears in asserted claim 95 of the ’731 patent, and in asserted claim 17 of the ’633 patent. *See* Joint Claim Construction and Prehearing Statement (D.I. 46 in 16-cv-773) at p. 7.

into individual words. (*Id.*; *See* Madisetti Decl., ¶¶ 58-59; *Sentius Corp. v. Flyswat Inc.*, C00-02233 SBA (N.D.CA) (Dkt. 52-7). Ex. 4, pp. 30-32.) Since the specification clearly articulates the structure, “a processor programmed to perform the step of parsing the given set of text into individual words, and equivalents thereof,” linked to the claimed function, the term “means for cutting the textual source material into a plurality of discrete pieces” is not indefinite.

I. means for determining a starting point address and an ending point address of at least one of the plurality of discrete pieces based upon the beginning position address / means for determining starting point addresses and ending point addresses of the plurality of discrete pieces based upon the beginning position address¹⁰

Claim Phrase	Sentius' Proposed Construction	BlackBerry's Proposed Construction
means for determining a starting point address and an ending point address of at least one of the plurality of discrete pieces based upon the beginning position address ‘731 Patent, Claim 95	<u>Function</u> : determining a starting point address and an ending point address of at least one of the plurality of discrete pieces based upon the beginning position address	<u>Function</u> : Agreed <u>Function</u> : Agreed
means for determining starting point addresses and ending point addresses of the plurality of discrete pieces based upon the beginning position address ‘633 Patent, Claim 17	<u>Function</u> : determining a starting point address and an ending point address of at least one of the plurality of discrete pieces based upon the beginning position address <u>Structure</u> : a processor programmed to perform the step of identifying, for any given words in the file to be linked, their starting and ending character positions offset from the first character position, and equivalents thereof.	<u>Structure</u> : This claim is indefinite under 35 U.S.C. § 112 ¶ 2 and ¶ 6 because the specification does not sufficiently disclose an algorithm to perform the function associated with this limitation.

The specification specifies that the system includes “a grammar parser 23 and a link engine 22 that build an index 21 which, in turn locates each textual and audio/video reference in the source material.” (‘731 patent, 5:13-16.) The specification further teaches that “[i]ndices of

¹⁰ These claim terms appear in asserted claim 95 of the ‘731 patent, and in asserted claim 17 of the ‘633 patent. *See* Joint Claim Construction and Prehearing Statement (D.I. 46 in 16-cv-773) at pp. 8-9.

the component words and phrases are built with links to the reference material,” in particular that “the cuts are indexed based upon the position offset from the beginning of the text.” (’731 patent, 7:26-33.) The specification discloses that, thereafter, “[t]he start and end points of the cut text are recorded in a look-up table.” (*Id.*, 7:34-35.) Here, the specification is clear that the discrete pieces, or “cuts,” are indexed by determining their starting and ending point addresses. The starting and ending point addresses are determined by identifying their position offset from the first character position, *i.e.* the beginning of the text. (*See* Madisetti Decl., ¶ 65.) The above identified portions of the specification are consistent with the remainder of the specification, in which the starting and ending point addresses are also referred to as “indices”: “The offset value is compared to the start and end position indices stored in a look-up table (201, 202).” (’731 patent, Fig. 2 at 202, 6:55-57; *See* Madisetti Decl., ¶ 65.)

The specification thus sufficiently discloses an algorithm which will assign a value to the starting character position and the ending character position for at least one identified portion of text. (*See* Madisetti Decl., ¶¶ 66-67) Based on the structure given in the specification, one skilled in the art would understand with reasonable certainty the boundary of the claimed function. In particular, one skilled in the art would understand that the specification discloses determining a starting and ending point address for any given word in a text using an offset from the previously assigned first character position of the text file. (*Id.*) These terms therefore are not indefinite since the specification clearly articulates the structure, “a processor programmed to perform the step of identifying, for any given words in the file to be linked, their starting and ending character positions offset from the first character position, and equivalents thereof,” linked to the claimed function.

J. means for recording in a look-up table the starting and ending point addresses¹¹

Claim Phrase	Sentius' Proposed Construction	BlackBerry's Proposed Construction
means for recording in a look-up table the starting and ending point addresses	Not MPF. Alternatively, <u>Function</u> : recording in a look-up table the starting and ending point addresses <u>Structure</u> : a processor storing the identified offset values in a data structure, and equivalents thereof.	<u>Function</u> : Agreed <u>Structure</u> : “a personal computer” programmed to record in a look-up table the starting and ending point addresses” of the plurality of discrete pieces (4:7-8).

The term “means for recording in a look-up table the starting and ending point addresses” overcomes the presumption of invoking 35 U.S.C. § 112 ¶ 6 because the limitation includes the structure necessary to perform the recited function (*i.e.*, a “look-up table”). One skilled in the art would understand that “recording” refers to the general storage function of a computer processor, and that a “look-up table” describes the structure of a data structure which records the data so it can be looked up later in the process. (Madisetti Decl., ¶¶ 69-71, 75.) Thus, the structure, “a look-up table,” that is necessary to perform the function of storing the starting and ending point addresses is disclosed within the claim limitation. As one skilled in the art would understand that the claim limitation recites definite structure for the claimed function, 35 U.S.C. § 112 ¶ 6 should not apply.

Alternatively, if the term is interpreted under 35 U.S.C. § 112 ¶ 6, sufficient structure corresponding to the claimed function is given as a processor storing the identified offset values in a data structure, and equivalents thereof. (*Id.*, ¶¶ 68-69.) The specification states the system includes “a grammar parser 23 and a link engine 22 that build an index 21 which, in turn locates

¹¹ This claim term appears in asserted claim 95 of the '731 patent, and in asserted claim 17 of the '633 patent. *See* Joint Claim Construction and Prehearing Statement (D.I. 46 in 16-cv-773) at p. 10.

each textual and audio/video reference in the source material.” (’731 patent, 5:13-16.) The specification teaches that “[w]hen the image is created, the cuts are indexed based upon the position offset from the beginning of the text. The start and end points of the cut text are recorded in a look-up table along with the links to external references.” (’731 patent, 7:31-55; Madisetti Decl., ¶¶ 72-74.) An exemplary data structure for recording the starting and ending point addresses is shown in Fig. 1 as file 33 and offset index 35, accessed via the application program 42, and in Fig. 2 as look-up table 201/202. (See ’731 patent, 5:29-33.) One skilled in the art would understand that the specification recites the sufficient structure of recording the starting and ending point addresses calculated in the previous limitation into a look-up table in the present limitation. (Madisetti Decl., ¶ 73.)

Furthermore, Defendants’ proposed construction unduly narrows this term to use of a “personal computer.” In contrast, the specification supports the use of any general processor and lists several different examples. (See ’731 patent, Fig. 1, 5:5-19, 7:1-10 (“visual editor”), Fig. 3-4, 4:64-66, 5:29-44, 8:28-9:47 (“electronic viewer”), Fig. 5, 5:29-33, 5:45-6:9, 9:48-11:34 (“personal dictionary”).) Thus, Defendants’ proposed construction is incorrect at least because it excludes such disclosed embodiments. (See *Oatey Co.*, 514 F.3d at 1276.)

K. means for linking at least one of the plurality of discrete pieces to at least one of a plurality of external reference materials by recording in the look-up table, along with the starting and ending point addresses of the at least one of the plurality of discrete pieces, a link to the at least one of the plurality of external reference materials¹²

Claim Phrase	Sentius’ Proposed Construction	BlackBerry’s Proposed Construction
means for linking at least one of the plurality of discrete pieces to at least one of a plurality of external reference materials by recording in the look-up table, along with the starting and ending point addresses of the at least one of the plurality of discrete pieces, a link to the at least one of the plurality of external reference materials¹²	Not MPF. Alternatively, <u>Function:</u> recording in the	<u>Function:</u> linking at least one of the plurality of discrete pieces to at least one of a plurality of external reference materials by recording in the look-up

¹² This claim term appears in asserted claim 95 of the ’731 patent. See Joint Claim Construction and Prehearing Statement (D.I. 46 in 16-cv-773) at pp. 10-12.

of a plurality of external reference materials by recording in the look-up table, along with the starting and ending point addresses of the at least one of the plurality of discrete pieces, a link to the at least one of the plurality of external reference materials	look-up table a link to at least one external reference material <u>Structure</u> : a processor storing a pointer in the data structure for a given offset value range that points the system to at least one corresponding external reference material for that offset value range, and equivalents thereof.	table, along with the starting and ending point addresses of the at least one of the plurality of discrete pieces, a link to the at least one of the plurality of external reference materials <u>Structure</u> : “a personal computer” programmed to record in the look-up table, along with the starting and ending point addresses of the at least one of the plurality of discrete pieces, a link to the at least one of the plurality of external reference materials (4:7-8).
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This term overcomes the presumption of invoking 35 U.S.C. § 112 ¶ 6 because the limitation includes the algorithm necessary to perform the recited function. While the claim term uses the word “means,” the recited steps of “recording in the look-up table, along with the starting and ending point addresses of the at least one of the at plurality of discrete pieces, a link to the at least one of the plurality of external reference materials” provides the structure for “linking at least one of the plurality of discrete pieces to at least one of a plurality of external reference materials.” The specification discloses the linking step as being performed by storing in a data structure, such as an offset index 35 corresponding to look-up table 201/202, linking information, such as a pointer in the third column of the look-up table 202. (Madisetti Decl., ¶ 77.) Furthermore, one of ordinary skill in the art would understand that the “recording” step refers to the general storage function of a computer processor. (*Id.*) Thus, linking the discrete pieces to the external reference materials, as claimed, involves storing the starting point address, ending point address, and a link to the external reference material in a data structure.

In the alternative, if this term is interpreted as invoking 35 U.S.C. § 112 ¶ 6, the claimed function for this claim phrase is “recording in the look-up table a link to at least one external reference material.” The specification discloses that “[w]hen the image is created, the cuts are indexed based upon the position offset from the beginning of the text. The start and end points of

the cut text are recorded in a look-up table along with the links to external references.” (’731 patent: 7:21-39; Madisetti Decl., ¶ 78.)

The specification further teaches a “database 20 sources a grammar parser 23 and a link engine 22 that builds an index 21 which, in turn, locates each textual and audio/video reference in the source material. The index provides a location for each reference in a database 12 that includes a relational database engine 15, and linkable entities, such as text references 16, audio references 17, graphic references 18, and the like.” (’731 patent, 5:13-19.) “The indexor/viewer 29 creates a multi-media resource 30, such as a file 33 that was processed as described above to produce a data resource 34, an offset index 35, and linked entities 36 to the data resource for access by the user.” (’731 patent, 5:24-28; *See* Madisetti Decl., ¶¶ 78-83; *See also* *Id.*, 7:11-20 (“The linking process takes the text after the word cut process and links it to an external reference . . .”).) Thus, the specification makes clear that the structure corresponding to the claimed function is “a processor storing a pointer in the data structure for a given offset value range that points the system to at least one corresponding external reference material for that offset value range, and equivalents thereof.” (Madisetti Decl., ¶ 76.)

Furthermore, Defendants’ proposed construction unduly narrows this term to use of a “personal computer.” In contrast, the specification supports the use of any general processor and lists several different examples. (*See* ’731 patent, Fig. 1, 5:5-28, 7:11-20 (“link engine”), Fig. 3-4, 4:64-66, 5:29-44, 8:28-9:47 (“electronic viewer”), Fig. 5, 5:29-33, 5:45-6:9, 9:48-11:34 (“personal dictionary”).) Thus, Defendants’ proposed construction is incorrect at least because it excludes such disclosed embodiments. (*See* *Oatey Co.*, 514 F.3d at 1276.)

L. means for linking the plurality of discrete pieces to external reference materials by recording in the look-up table, along with the starting and

ending point addresses of the plurality of discrete pieces, links to the external reference materials¹³

Claim Phrase	Sentius' Proposed Construction	BlackBerry's Proposed Construction
means for linking the plurality of discrete pieces to external reference materials by recording in the look-up table, along with the starting and ending point addresses of the plurality of discrete pieces, links to the external reference materials	Not MPF. Alternatively, <u>Function</u> : recording in the look-up table a link to at least one external reference material <u>Structure</u> : a processor storing a pointer in the data structure for a given offset value range that points the system to at least one corresponding external reference material for that offset value range, and equivalents thereof.	<u>Function</u> : linking the plurality of discrete pieces to external reference materials by recording in the look-up table, along with the starting and ending point addresses of the plurality of discrete pieces, links to the external reference materials <u>Structure</u> : “a personal computer” programmed to record in the look-up table, along with the starting and ending point addresses of the at least one of the plurality of discrete pieces, a link to the at least one of the plurality of external reference materials (4:7-8).

This claim term is only different from the previously recited claim term, “means for linking at least one of the plurality of discrete pieces to at least one of a plurality of external reference materials by recording in the look-up table, along with the starting and ending point addresses of the at least one of the plurality of discrete pieces, a link to the at least one of the plurality of external reference materials” by the emphasized portions. These differences do not alter either side’s constructions. Thus, this claim term overcomes the presumption of invoking 35 U.S.C. § 112 ¶ 6 because the limitation includes the algorithm necessary to perform the recited function for the same reasons as Claim Term K. (Madisetti Decl., ¶¶ 76-77.)

Alternatively, if this term is interpreted as invoking 35 U.S.C. § 112 ¶ 6, the claimed function for this claim phrase is also “recording in the look-up table a link to at least one external reference material.” One skilled in the art would understand that the claim limitation refers to

¹³ This claim term appears in asserted claim 17 of the ’633 patent. See Joint Claim Construction and Prehearing Statement (D.I. 46 in 16-cv-773) at pp. 13-14.

the general storage function of a computer processor which can be performed by the algorithm recited in this limitation. (Madisetti Decl., ¶ 77; *See* Goodin Decl., ¶ 135.) Further structure for the recited function is given in the '731 patent at 5:13-19, 5:24-28, 7:11-39, as described above in Section IV.K. (*See* Madisetti Decl., ¶ 78-83.)

M. means for displaying an image of the textual source material¹⁴

Claim Phrase	Sentius' Proposed Construction	BlackBerry's Proposed Construction
means for displaying an image of the textual source material	<p>Not MPF.</p> <p>Alternatively,</p> <p><u>Function</u>: displaying an image of the textual source material</p> <p><u>Structure</u>: a processor displaying a portion of a text file, <i>i.e.</i>, creating a view of the textual source material to be displayed on an electronic display, and equivalents thereof.</p>	<p><u>Function</u>: Agreed</p> <p><u>Structure</u>: “personal computer” and “electronic display of a personal computer (4:7-8).</p>

While the term “means for displaying an image of the textual source material” uses the word “means,” the term overcomes the presumption of invoking 35 U.S.C. § 112 ¶ 6 because one skilled in the art would understand that “displaying an image of the textual source material” refers to the general function of a computer processor to create a viewable image of text. Thus, the term overcomes the presumption and should not be interpreted under 35 U.S.C. § 112 ¶ 6.

In the alternative, if this term is interpreted under 35 U.S.C. § 112 ¶ 6, the structure corresponding to the claimed function of “displaying an image of the textual source material” is “a processor displaying a portion of a text file, *i.e.* creating a view of the textual source material to be displayed on an electronic display, and equivalents thereof.” In particular, the specification recites the user interface 32 (which includes electronic viewer module 43) performs the display function; “[a] user interface 32 to the system includes an electronic viewer 43 that runs along

¹⁴ This claim term appears in asserted claim 95 of the '731 patent. *See* Joint Claim Construction and Prehearing Statement (D.I. 46 in 16-cv-773) at p. 14.

with the system application program 42 and provides the following functional elements: index management 37, user display 38 . . .” (’731 patent, 4:6-8, 5:29-32; Abstract.) Furthermore, Figs. 3-5 each illustrate a “screen display” showing views according to the claimed invention. (*Id.*, Figs. 3-5, 4:18-27; *See also* Madisetti Decl., ¶ 90.) The specification describes that “[d]uring the compile process an image of the text is created,” in particular, the “image of the text that the end user sees.” (’731 patent, 7:24, 7:31-32.) Multiple portions of the specification teach that, after the image is created, it is then displayed on a screen: “Fig. 3 is a screen display showing a highlighted Japanese word and a pop-up menu.” (*Id.*, 7:51-53; *See also* *Id.*, Fig. 1, 5:29-33 (“electronic viewer 43” and “user display 38”).) “The user interacts with the electronic book with a pointing device.” (*Id.*, 7:40-42.) “To find a reference to a particular word or other selected entry displayed on the screen, the user clocks the text that is viewed with a pointing device, such as a mouse (200).” (*Id.*, 6:48-52.) Thus, one skilled in the art would know that an image is constructed, and then is displayed on the screen, electronic viewer, or computer monitor. (Madisetti Decl., ¶¶ 84-90.)

Furthermore, Defendants’ proposed construction unduly narrows this term to use of a “personal computer” and “electronic display of a personal computer.” The specification supports the use of any general processor or display and lists several different examples. (*See* ’731 patent, Figs. 1, 3-5, 4:18-27, 5:29-33, 7:50-55, 8:14-18, 9:48-60 (“user display”/“screen display”), Fig. 3-4, 4:64-66, 5:29-44, 8:28-9:47 (“electronic viewer”), Fig. 5, 5:29-33, 5:45-6:9, 9:48-11:34 (“personal dictionary”).) Thus, Defendants’ proposed construction is incorrect at least because it excludes such disclosed embodiments. (*See Oatey Co.*, 514 F.3d at 1276.)

N. means for selecting a discrete portion of the displayed textual source material image / means for selecting a discrete portion of an image of the source material¹⁵

Claim Phrase	Sentius' Proposed Construction	BlackBerry's Proposed Construction
means for selecting a discrete portion of the displayed textual source material image '731 Patent, Claim 95	Not MPF. Alternatively, <u>Function</u> : selecting a discrete portion of the displayed textual source material image/an image of the source material	<u>Function</u> : Agreed <u>Structure</u> : a “pointing device, such as a mouse (200)” (6:50-51, 4:15-22); an “electronic display of a personal computer” (4:7-8); and a “personal computer” (4:7-8).
means for selecting a discrete portion of an image of the source material '633 Patent, Claim 17	<u>Structure</u> : a processor determining the location on a display where a user input was received, and equivalents thereof.	

While the term “means for selecting a discrete portion of the displayed textual source material image” uses the word “means,” the term overcomes the presumption of invoking 35 U.S.C. § 112 ¶ 6 because the limitation includes the structure necessary to perform the recited function (*i.e.* “selecting”). One skilled in the art would understand that this term refers to the general function of a computer processor to identify where a user selection or input, such as a mouse click, was received on a display. (Madisetti Decl., ¶ 92.) Thus, the structure that is necessary to perform the function of determining the location on a display where a user input was received is recited in the claim limitation. As one skilled in the art would understand that the claim limitation recites definite structure providing for determining the location, 35 U.S.C. § 112 ¶ 6 should not apply.

In the alternative, if this term is interpreted under 35 U.S.C. § 112 ¶ 6, the specification makes clear that the structure corresponding to the claimed function of “selecting a discrete portion of the displayed textual source material image/an image of the source material” is “a

¹⁵ These claim terms appear in asserted claim 95 of the '731 patent, and in asserted claim 17 of the '633 patent. *See* Joint Claim Construction and Prehearing Statement (D.I. 46 in 16-cv-773) at p. 15.

processor determining the location on a display where a user input was received, and equivalents thereof.” (Madisetti Decl., ¶¶ 91-96.) In particular, the specification recites the user interface 32 (which includes application program 42 and electronic viewer module 43) receives a user input on a display. (’731 patent, 5:29-38.) One skilled in the art, in light of the specification, would recognize this term to refer to the general function of a computer processor to identify where a user input was received on a display. (Madisetti Decl., ¶¶ 91-92.) For example, the specification discloses that, “[t]o find a reference to a particular word or other selected entry displayed on the screen, the user clicks the text that is viewed with a pointing device, such as a mouse (200). The click position is determined and used to calculate an offset value within the text (200).” (’731 patent, 6:48-65.) Furthermore, the specification teaches that “[t]he user interacts with the electronic book using a pointing device. When the user ‘clicks’ within the text image, the location of the pointer is determined.” (Id., 7:40-49; 5: 29-38. *See also* Madisetti Decl., ¶¶ 93-95) The specification also describes other structures equivalent to a pointing device, such as “arrow buttons” that “move the location of the Word Pointer and update the reference information.” (’731 patent, 9:36-38.)

O. means for determining a display address of the selected discrete portion¹⁶

Claim Phrase	Sentius' Proposed Construction	BlackBerry's Proposed Construction
means for determining a display address of the selected discrete portion	Not MPF. Alternatively, <u>Function</u> : determining a display address of the selected discrete portion <u>Structure</u> : a processor determining the display coordinates of the user input, and equivalents thereof.	<u>Function</u> : Agreed <u>Structure</u> : This claim is indefinite under 35 U.S.C. § 112 ¶ 2 and ¶ 6 because the specification does not sufficiently disclose an algorithm to perform the function associated with this limitation.

¹⁶ This claim term appears in asserted claim 95 of the ’731 patent, and in asserted claim 17 of the ’633 patent. *See* Joint Claim Construction and Prehearing Statement (D.I. 46 in 16-cv-773) at p. 16.

While the term “means for determining a display address of the selected discrete portion” uses the word “means,” the term overcomes the presumption of invoking 35 U.S.C. § 112 ¶ 6 because the limitation includes the structure necessary to perform the recited function (*i.e.* “the selected discrete portion”). One skilled in the art would understand that the term refers to the general function of a computer processor to determine the display location of where a user input was received. (Madisetti Decl., ¶¶ 97-98.) Determining the display coordinates of the user input does not require specialized programming; indeed both a general purpose computer and a computer with special programming can determine the display location. The selection of the discrete portion includes determining the display address. *See* '731 patent, 6:48-55 (“To find a reference to a particular word or other selected entry displayed on the screen, the user clicks the text that is viewed with a pointing device, such as a mouse (200). The click position is determined and used to calculate an offset value within the text (200”).) Thus, the structure that is necessary to perform the function of determining the display address is recited in the claim limitation. As one skilled in the art would understand that the claim limitation recites definite structure, 35 U.S.C. § 112 ¶ 6 should not apply.

In the alternative, if this term is interpreted under 35 U.S.C. § 112 ¶ 6, the specification makes clear that the structure corresponding to the claimed function of “determining a display address of the selected discrete portion” is “a processor determining the display coordinates of the user input, and equivalents thereof.” In particular, the specification recites that the user interface 32 (which includes application program 42 and electronic viewer module 43) determines the display coordinates of the user input. ('731 patent, 5:29-38.) The specification discloses that, after a user clicks text with a pointing device, the “click position is determined and used to calculate an offset value within the text (200). In the example shown in Fig. 2, the user clicks at a particular location, e.g. horizontal and vertical coordinates 100 and 75, respectively

and an offset value of 25 is returned.” (’731 patent, 6:46-65.) The specification teaches an example in which “[t]he user interacts with the electronic book using a pointing device,” and after clicking on the text image, “the location of the pointer is determined.” (*Id.*, 7:40-42.) Thereafter, “[t]he location is converted into a position offset from the beginning of the text and used to determine which component word or phrase was selected.” (*Id.*, 7:42-45; *See* Madisetti Decl., ¶¶ 99-100.) Thus, the specification discloses determining both the display coordinates of the user input, a general computer function, but also the display address of the selected discrete portion. One skilled in the art would understand the particular function and structure of the claim term in light of the specification with reasonable certainty. (Madisetti Decl., ¶¶ 101-102.)

Thus, if the “means for determining a display address of the selected discrete portion” element is interpreted under 35 U.S.C. § 112 ¶ 6, the term is therefore not indefinite since the specification clearly articulates the structure, “a processor determining the display coordinates of the user input, and equivalents thereof,” linked to the claimed function. (*See Sentius v. Flyswat* Claim Construction Order (Ex. 4), pp. 37-40.)¹⁷

P. means for converting the display address of the selected discrete portion to an offset value from the beginning position address¹⁸

Claim Phrase	Sentius’ Proposed Construction	BlackBerry’s Proposed Construction
means for converting the display address of the selected discrete portion	<u>Function</u> : converting the display address of the selected discrete portion to an offset value from the beginning position address	<u>Function</u> : Agreed <u>Structure</u> : This claim is indefinite under 35 U.S.C. § 112 ¶ 2 and ¶ 6 because the

¹⁷ In *Sentius v. Flyswat* (Ex. 4 decision), the court construed “Determining the address of said selected discrete portion” means determining the pixel location or screen coordinates of the selected discrete portion of the source material image which the user has selected on the display.”

¹⁸ This claim term appears in asserted claim 95 of the ’731 patent, and in asserted claim 17 of the ’633 patent. *See* Joint Claim Construction and Prehearing Statement (D.I. 46 in 16-cv-773) at p. 17.

to an offset value from the beginning position address	<u>Structure:</u> a processor programmed to perform the step of determining the offset value of the display location where the user input was received based upon an offset index, and equivalents thereof.	specification does not sufficiently disclose an algorithm to perform the function associated with this limitation.
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The specification recites an “application program 42” that includes programming to determine an offset of a display location from a beginning position, such as in step 200, using for example an associated database (12, 20). (’731 patent, Figs. 1-2, 5:5-33; Madisetti Decl., ¶¶ 103-104.) The specification discloses that a “click position is determined and used to calculate an offset value within the text (200). In the example shown in Fig. 2, the user clicks at a particular location, *e.g.* horizontal and vertical coordinates 100 and 75, respectively and an offset value of 25 is returned.” (’731 patent, 6:51-55; Madisetti Decl., ¶ 105.) In particular, “[w]hen the user ‘clicks’ within the text image, the location of the pointer is determined. The location is converted into a position offset from the beginning of the text and used to determine which component word or phrase was selected.” (’731 patent, 7:41-45; Madisetti Decl., ¶ 106.) The specification makes clear that the user is clicking on the image compiled and reassembled by the processor from the cut text, the same processor that determined the offsets of each piece of cut text from the beginning of the text. (See ’731 patent, 7:22-35.)

In addition, each word or phrase was previously converted to an image which occupies a known image size. (See ’731 patent, 7:22-32; Madisetti Decl., ¶ 107.) One skilled in the art would understand that, since the arrangement of images to display complete passages is known, a click position is mapped to a specific text image and therefore to a particular offset. (Madisetti Decl., ¶ 107.) In particular, the specification recites the user interface 32 (which includes application program 42 and electronic viewer module 43) converts the display coordinates of the user input into a corresponding offset value within the document. (’731 patent, 5:29-38.) Since the specification clearly articulates the structure, “a processor programmed to perform the step of

determining the offset value of the display location where the user input was received based upon an offset index, and equivalents thereof,” linked to the claimed function, the term “means for converting the display address of the selected discrete portion to an offset value from the beginning position address” is not indefinite. (*See Sentius v. Flyswat* Claim Construction Order (Ex. 4), pp. 40-41; Madisetti Decl., ¶ 108.)

Q. means for comparing the offset value with the starting and ending point addresses recorded in the look-up table to identify one of the plurality of discrete pieces¹⁹

Claim Phrase	Sentius' Proposed Construction	BlackBerry's Proposed Construction
means for comparing the offset value with the starting and ending point addresses recorded in the look-up table to identify one of the plurality of discrete pieces	<u>Function</u> : comparing the offset value with the starting and ending point addresses recorded in the look-up table to identify one of the plurality of discrete pieces <u>Structure</u> : a processor programmed to perform the step of matching the identified offset value with one of the offset value ranges stored in the data structure, and equivalents thereof.	<u>Function</u> : Agreed <u>Structure</u> : a “personal computer” (4:7-8) programmed to determine whether the offset value falls between the starting and ending point addresses for the plurality of discrete pieces of textual source material stored in the look-up table to identify one of the plurality of discrete pieces of textual source material as a match when the offset value falls between that discrete piece’s starting and ending point addresses. (6:55-65; 7:45-49).

The specification makes clear that the structure corresponding to the claimed function only requires “a processor programmed to perform the step of matching the identified offset value with one of the offset value ranges stored in the data structure, and equivalents thereof.” (Madisetti Decl., ¶¶ 109-110, 114.)

The specification discloses that “[t]he offset value is compared to the start and end position indices stored in a look-up table (201, 202). The link between the selected text and the

¹⁹ This claim term appears in asserted claim 95 of the '731 patent, and in asserted claim 17 of the '633 patent. *See* Joint Claim Construction and Prehearing Statement (D.I. 46 in 16-cv-773) at p. 18.

external reference is resolved (203), and the external reference is retrieved and displayed to the user (204). In the example of Fig. 2 an offset of 25 is located at the look-up table location having a start point of 20 and an end point of 27 and is linked to text located at position 200.” (’731 patent, 6:46-65; Madisetti Decl., ¶ 111.) In particular, “[t]he process involves comparing the offset with the start and end values stored in the look-up table as discussed above in connection with Fig. 2. When the offset value falls between a component’s start and end points, a match is made and the external references can be resolved.” (’731 patent, 7:40-49; Madisetti Decl., ¶ 112.) The data structure 201/202 is traversed by the processor until an entry is found having a starting point less than the offset and an ending point greater than the offset. (Madisetti Decl., ¶ 113.) One skilled in the art would understand that the “application program 42” includes this programming that matches the offset value obtained in the previous step with one of the offset ranges stored in the data structure 201/202. (Madisetti Decl., ¶ 110.)

Furthermore, Defendants’ proposed construction unduly narrows this term to use of a “personal computer.” In contrast, the specification supports the use of any general processor and lists several different examples. (See ’731 patent, Fig. 3-4, 4:64-66, 5:29-44, 8:28-9:47 (“electronic viewer”), Fig. 5, 5:29-33, 5:45-6:9, 9:48-11:34 (“personal dictionary”).) Thus, Defendants’ proposed construction is incorrect at least because it excludes such disclosed embodiments. (See *Oatey Co.*, 514 F.3d at 1276.) In particular, the specification recites that the user interface 32 (which includes application program 42) accesses the offset index 35 to determine which word corresponds to the location of user input. (’731 patent, 5:29-38.)

R. means for selecting one of the plurality of external reference materials corresponding to the identified one of the plurality of discrete pieces²⁰

²⁰ This claim term appears in asserted claim 95 of the ’731 patent, and in asserted claim 17 of the ’633 patent. See Joint Claim Construction and Prehearing Statement (D.I. 46 in 16-cv-773) at pp. 19-20.

Claim Phrase	Sentius' Proposed Construction	BlackBerry's Proposed Construction
means for selecting one of the plurality of external reference materials corresponding to the identified one of the plurality of discrete pieces	<u>Function</u> : selecting one of the plurality of external reference materials corresponding to the identified one of the plurality of discrete pieces <u>Structure</u> : a processor programmed to perform the step of using the pointer for the matched offset value range to identify a corresponding external reference material, and equivalents thereof.	<u>Function</u> : “selecting one of the plurality of external reference materials corresponding to the identified one of the plurality of discrete pieces,” which is indefinite because the claim does not specify with reasonable certainty to one of ordinary skill in the art how to interpret this limitation <u>Structure</u> : This claim is also indefinite under 35 U.S.C. § 112 ¶ 2 and ¶ 6 because the specification does not sufficiently disclose an algorithm to perform the function associated with this limitation.

The claimed function for this claim phrase is “selecting one of the plurality of external reference materials corresponding to the identified one of the plurality of discrete pieces.” One skilled in the art would understand that the claim limitation refers to a processor programmed to select an external reference material that corresponds to the identified discrete piece of the plurality of external reference materials. (Madisetti Decl., ¶¶ 115-116.) The claimed function is shown in Fig. 3, and also refers to selecting the pointer or link to the external reference stored in the data structure such as 201/202 in Fig. 2. (See '731 patent, 6:55-59, 7:45-49; Madisetti Decl., ¶¶ 117-119.) After the entry matching the discrete piece in the lookup table has been identified in the previous step, the external reference pointed to by the linking information in the “link” column is selected for the particular row having the matched entry. (*Id.*)

Defendants’ expert Goodin concludes that “‘selecting’ must mean something different from ‘identifying’ that is in the previous limitation,” and attempts to confuse the claimed function with “the process of creating a dropdown box and allowing a user to select one of the dropped down options.” (See Goodin Decl., ¶ 88.) Such an interpretation of the claimed function is incorrect. The plain meaning of the claim language unequivocally requires “selecting one of the plurality of external reference materials corresponding to the identified one of the

plurality of discrete pieces” to tie the previous claim limitation to the next. The previous claim limitation involves identifying one of the plurality of discrete pieces, (*See supra*. Section IV.R.) and the next claim limitation requires “retrieving the selected one of the plurality of external reference materials using a recorded link.” (*See infra*. Section IV.T.) One skilled in the art would recognize that, once the matching entry in the look-up table has been identified in the previous step, the claimed system would then select the particular link (out of the links stored in the look-up table) corresponding to that particular matched entry which points the system to the external reference materials to be retrieved for that entry. (*See* Madisetti Decl., ¶ 120.) Thus, the claimed function is not indefinite since one skilled in the art would know with reasonable certainty how to interpret this limitation. In particular, the specification recites that the user interface 32 (which includes application program 42) accesses the offset index 35 to determine what corresponding external reference material is pointed to by the linking information for that word via the linking information recorded for that entry. (’731 patent, 5:29-38.)

One skilled in the art would understand that the “application program 42” and “link engine 22” obtains the linking information contained in the data structure corresponding to the matched offset value range, such as a pointer value listed in the “link” column from table 202 in Fig. 2. (’731 patent, 5:20-33, 6:48-65, 7:20-39, 7:42-49; Madisetti Decl., ¶ 116.) For example, the specification recites that “[w]hen the offset value falls between a component’s start and end points, a match is made and the external references can be resolved.” (’731 patent, 7:40-49.) In addition, “the offset value is compared to the start and end position indices stored in a look-up table (201, 202). The link between the selected text and the external reference is resolved (203), and the external reference is retrieved and displayed to the user (204) . . . As can be seen from the look-up table (202), the link may be to text, sound, pictures, and video.” (’731 patent, 6:46-65.) Since the specification sufficiently recites the structure “a processor programmed to

perform the step of using the pointer for the matched offset value range to identify a corresponding external reference material, and equivalents thereof” as performing the claimed function, this claim term is not indefinite. (Madisetti Decl., ¶¶ 115-120.)

S. means for retrieving the selected one of the plurality of external reference materials using a recorded link to the selected one of the plurality of external reference materials²¹

Claim Phrase	Sentius’ Proposed Construction	BlackBerry’s Proposed Construction
means for retrieving the selected one of the plurality of external reference materials using a recorded link to the selected one of the plurality of external reference materials	<p><u>Function</u>: retrieving the selected one of the plurality of external reference materials using a recorded link to the selected one of the plurality of external reference materials</p> <p><u>Structure</u>: a processor programmed to perform the step of using the pointer for the matched offset value range to obtain the identified corresponding external reference material, and equivalents thereof.</p>	<p><u>Function</u>: Agreed</p> <p><u>Structure</u>: a “personal computer” programmed to retrieve the selected one of the plurality of external reference materials using a recorded link to the selected one of the plurality of external reference materials (4:7-8).</p>

The specification makes clear that the structure corresponding to the claimed function is “a processor programmed to perform the step of using the pointer for the matched offset value range to obtain the identified corresponding external reference material, and equivalents thereof.” (Madisetti Decl., ¶¶ 121-125.)

The specification discloses that “[t]he link between the selected text and the external reference is resolved (203), and the external reference is retrieved and displayed to the user (204).” (’731 patent, 6:46-65; Madisetti Decl., ¶ 123.) For example, “[a]s can be seen from the look-up table (202), the link may be to text, sound, pictures, and video. In the example, the text linkage is to the English language word ‘Japanese economy’.” (*Id.*) Furthermore, “[w]hen the

²¹ This claim term appears in asserted claim 95 and in non-asserted claims 1 and 15 of the ’731 patent. *See* Joint Claim Construction and Prehearing Statement (D.I. 46 in 16-cv-773) at p. 21.

offset value falls between a component's start and end points, a match is made and the external references can be resolved." ('731 patent, 7:40-49; Madisetti Decl., ¶ 124.) A person having ordinary skill in the art would understand that the "application program 42" includes this programming that resolves the links in the matched entry selected from the data structure to retrieve external reference materials. (Madisetti Decl., ¶ 122, 125.) In particular, the specification recites that the user interface 32 (which includes application program 42) retrieves for display the corresponding external reference material pointed to by the linking information for that word. ('731 patent, 5:29-38.) Thus, one skilled in the art, in light of the specification, would understand this term to refer to using the linking information to retrieve the corresponding data from an external database. (Madisetti Decl., ¶¶ 121-122.)

Furthermore, Defendants' proposed construction unduly narrows this term to use of a "personal computer." In contrast, the specification supports the use of any general processor and lists several different examples. (See '731 patent, Fig. 3-4, 4:64-66, 5:29-44, 8:28-9:47 ("electronic viewer"), Fig. 5, 5:29-33, 5:45-6:9, 9:48-11:34 ("personal dictionary").) Thus, Defendants' proposed construction is incorrect at least because it excludes such disclosed embodiments. (See *Oatey Co.*, 514 F.3d at 1276.)

T. means for displaying the retrieved external reference material / means for displaying on a computer the selected one of the external reference materials²²

Claim Phrase	Sentius' Proposed Construction	BlackBerry's Proposed Construction
means for displaying the retrieved external reference material '731 Patent, Claim 95	Not MPF. Alternatively, <u>Function: displaying/displaying on a computer</u> the retrieved external	<u>Function: displaying the retrieved external reference material</u> <u>Function: displaying on a</u>

²² These claim terms appear in asserted claim 95 of the '731 patent, and in asserted claim 17 of the '633 patent. See Joint Claim Construction and Prehearing Statement (D.I. 46 in 16-cv-773) at p. 22.

means for displaying on a computer the selected one of the external reference materials ‘633 Patent, Claim 17	reference material <u>Structure</u> : a processor displaying the obtained reference material, <i>i.e.</i> , creating a view of the selected external reference material to be displayed on an electronic display, and equivalents thereof.	computer the selected one of the external reference materials <u>Structure</u> : “personal computer” (4:7-8) and “electronic display of a personal computer” (4:7-8).
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While the claimed terms use the word “means,” the terms overcome the presumption of invoking 35 U.S.C. § 112 ¶ 6 because the limitation includes the structure necessary to perform the recited function (*i.e.* a display). A person having ordinary skill in the art would understand the function, “displaying/displaying on a computer the retrieved external reference material,” refers to the general display function of a computer processor. (Madisetti Decl., ¶ 126.) *See infra*. Section IV.M. Thus, the claim term overcomes the presumption and should not be interpreted under 35 U.S.C. § 112 ¶ 6.

In the alternative, if this term is interpreted under 35 U.S.C. § 112 ¶ 6, the specification makes clear that the structure corresponding to the claimed function of “displaying/displaying on a computer the retrieved external reference material” is “a processor displaying the obtained reference material, *i.e.*, creating a view of the selected external reference material to be displayed on an electronic display, and equivalents thereof.” (Madisetti Decl., ¶¶ 126-133.)

The specification discloses an “electronic viewer module” that is “used to view and read the electronic books provided with the language learning system.” (‘731 patent, 5:34-44; Madisetti Decl., ¶ 129; *See infra*. Section IV.M.) In particular, the specification recites that the user interface 32 (which includes electronic viewer module 43) creates a viewable image of the retrieved external reference material pointed to by the linking information for that word to display the same to the user. (‘731 patent, 5:29-38.) Furthermore, multiple portions of the specification teach that resolved external references are displayed. (*See infra*. Section IV.M; ‘731 patent, 4:37-40, 5:29-33, 6:46-65, 7:51-53; Madisetti Decl., ¶¶ 130-132.) Thus, one skilled

in the art would know that, once the linked data has been retrieved, it is displayed on the screen, electronic viewer, or computer monitor. (Madisetti Decl., ¶¶ 128-133.)

Furthermore, Defendants' proposed construction unduly narrows this term to use of a "personal computer" and "electronic display of a personal computer." The specification supports the use of any general processor or display and lists several different examples. (See '731 patent, Figs. 1, 3-5, 4:18-27, 5:29-33, 7:50-55, 8:14-18, 9:48-60 ("user display"/"screen display"), Fig. 3-4, 4:64-66, 5:29-44, 8:28-9:47 ("electronic viewer"), Fig. 5, 5:29-33, 5:45-6:9, 9:48-11:34 ("personal dictionary").) Thus, Defendants' proposed construction is incorrect at least because it excludes such disclosed embodiments. (See *Oatey Co.*, 514 F.3d at 1276.)

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that all counsel of record who are deemed to have consented to electronic service are being served with a copy of this document via the Court's CM/ECF system per Local Rule CV-5(a)(3) on this 26th day of May 2017.

/s/ Robert J. Yorio _____

Robert J. Yorio